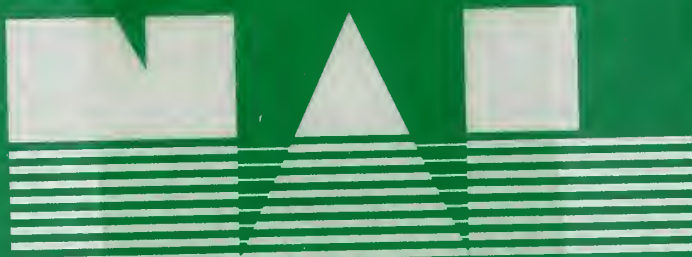


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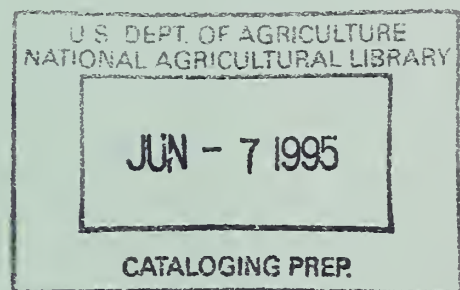
United States
Department of
Agriculture

Human Nutrition
Information Service

Administrative
Report No. 378

① **Machine-Readable Data Sets on**
• **Composition of Foods and**
• **Results from Food Consumption Surveys**

② Prepared by Nutrition Monitoring Division
Survey Statistics Branch
Hyattsville, MD 20782



1887

1888

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Revised May 1992

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INTRODUCTION

The research of the Nutrition Monitoring Division of the Human Nutrition Information Service (HNIS) generates much data related to food composition and food consumption surveys. This report briefly describes the publications and data sets related to these topics that are available and the procedures for obtaining them.

Most of the data sets are available on track tape, 1,600 or 6,250 BPI, in EBCDIC or ASCII format. Some are available on 5-1/4-inch floppy disks formatted for the IBM-PC.

Inquiries about the data should be addressed to--

U.S. Department of Agriculture
Human Nutrition Information Service
Nutrition Monitoring Division
Room 304, Federal Building
Hyattsville, MD 20782

Telephone: (301) 436-8507

FOOD COMPOSITION

The Nutrient Data Research Branch of HNIS provides comprehensive and up-to-date information on the nutrient composition of foods. Staff members gather and evaluate all available data on food composition from published and unpublished sources and generate data not available elsewhere by sponsoring extramural laboratory research. Data are processed through a computerized system to provide representative values of each nutrient in each food on a nationwide, year-round basis. Information on food composition is revised to account for advances in analytical methodology, changes in the food supply, and the introduction of new foods.

Agriculture Handbook No. 8, "Composition of Foods...Raw, Processed Prepared," serves as the basic reference on food composition. It was last completely revised in 1963. A complete, extensive revision has been underway for several years incorporating a looseleaf format to ease future updating and to allow space for the inclusion of additional nutrients and food items. To expedite the release of the revised information, this revision is being published section by section according to food groups. Thus far, 19 sections have been published. Work is at various stages of development for the remaining 3 sections.

The 1963 version of the handbook contains nearly 2,500 food items presented in two major tables--table 1 contains the amount of nutrients per 100 grams of edible portion of food, and table 2 gives the amount of nutrients in the edible portion of 1 pound of food "as purchased." Data are given in both tables for energy, proximate composition, vitamin A, thiamin, riboflavin, niacin, ascorbic acid, calcium, phosphorus, iron, sodium, and potassium. Data for water, ash, and crude fiber are included in table 1 but not in table 2. Three additional tables give information on fatty acids, cholesterol, and magnesium.

In the revised sections, each page contains the nutrient profile for a single food item. Data are presented for the 100-gram-edible basis, for two common measures, and for the edible portion of 1 pound as purchased. Values are provided for refuse, energy, proximate composition [water, protein, lipids, carbohydrate (including crude fiber in all sections and dietary fiber in 8-8), and ash], nine mineral elements [calcium, copper (except 8-1, 8-2, 8-4), iron, magnesium, manganese (except 8-1 through 8-4), phosphorus, potassium, sodium, and zinc], nine vitamins [ascorbic acid, thiamin, riboflavin, niacin, pantothenic acid, vitamin B6, folacin, vitamin B12, and vitamin A, with the addition of total and alpha-tocopherol in 8-4], individual fatty acids, cholesterol, total phytosterols, and 18 amino acids.

In order to provide users with estimates of the variability and reliability of the nutrient data, the standard error of the values on the 100-gram food basis and the number of samples on which the 100-gram values are based have been incorporated into each table. Much of the data used in revising Agriculture Handbook No. 8 was obtained through the cooperation of private industry, government agencies, and academic institutions. The information presented will be especially useful to research groups who conduct dietary studies and nutritional status studies, as well as to professional and technical personnel, including those in food industries and health-related professions who plan or evaluate diets and food supplies.

Introductory remarks and appendices in the 1963 handbook and the revised sections provide supplementary information about the foods and include explanations about developing the nutrient values. Scientific names are included for primary food items.

Home and Garden Bulletin No. 72, "Nutritive Value of Foods," provides nutrient data for over 900 commonly consumed food items. This bulletin was last revised in 1985. Data are presented in common household units, such as cups, ounces, and quarts. Nutrients included are water, calories, protein, fat, total saturated, monounsaturated, and polyunsaturated fatty acids, cholesterol, carbohydrate, calcium, phosphorus, iron, potassium, sodium, vitamin A value as IU and RE, thiamin, riboflavin, niacin, and ascorbic acid.

Computerized nutrient data sets corresponding to the above and other publications are described in the following section. Because the publications contain important information about the foods and nutrient values, users of computerized nutrient data sets are encouraged to become familiar with the publications corresponding to the data sets being used or being considered for use.

Stock numbers and cost information for the publications are presented in the following table. Instructions for ordering publications are on page 40.

Publications

<u>Publication</u>	<u>Stock Number</u>	<u>Price</u>
Agriculture Handbook No. 8, Composition of Foods...Raw, Processed, Prepared 1963 Edition	001-000-00768-8	\$7.00
Agriculture Handbook No. 8, Composition of Foods...Raw, Processed, Prepared Revised Sections (1976-present)		
8-1 Dairy and Egg Products (1976).....	001-000-03635-1	\$9.00
8-2 Spices and Herbs (1977).....	001-000-03646-7	3.75
8-3 Baby Foods (1978).....	001-000-03900-8	12.00
8-4 Fats and Oils (1979).....	001-000-03984-9	7.50
8-5 Poultry		12.00
8-7 Sausages and Luncheon Meats (1980)..	001-000-04183-5	6.00
8-8 Breakfast Cereals (1982).....	001-000-04283-1	9.00
8-9 Fruits and Fruit Juices (1982).....	001-000-04287-4	14.00
8-10 Pork Products (1983).....	001-000-04368-4	11.00
8-11 Vegetables and Vegetable Products (1984).....	001-000-04427-3	16.00
8-12 Nut and Seed Products (1984).....	001-000-04429-0	7.50
8-13 Beef Products (1986).....	001-000-04482-6	19.00
8-14 Beverages (1986).....	001-000-04468-1	9.50
8-15 Finfish and Shellfish Products (1987)	001-000-04497-4	10.00
8-16 Legumes and Legume Products (1986)..	001-000-04488-5	8.50
8-17 Lamb, Veal and Game.....	001-000-04541-1	13.00
8-18 Baked Products.....	*	
8-19 Snacks and Sweets.....	001-000-04577-6	19.00
8-20 Cereal Grains and Pastas.....	001-000-04549-1	8.50
8-21 Fast Foods.....	001-000-04524-5	11.00
8-22 Mixed Dishes.....	*	
Agriculture Handbook No. 456, Nutritive Value of American Foods in Common Units (1975).....	001-000-03184-8	8.50
Home and Garden Bulletin No. 72 Nutritive Value of Foods (Rev. 1985).....	001-000-04457-5	2.75

* Not yet available

Descriptions of Data Sets

USDA Nutrient Data Base for Standard Reference

This is USDA's most complete, most up-to-date food composition data base. It incorporates the data in the revised sections of Agriculture Handbook No. 8. Data from the 1963 edition are included for food groups for which revision is incomplete. Data from new sections of the revised handbook are added as they are published. Updated versions are released periodically and are identified by release number and date.

Values not available from the handbooks were imputed and included in the tape when possible. Values for enriched flour and bread and for other products made with enriched flour have been changed to reflect the current revised standards of identity. These changes include higher iron levels, which became mandatory after July 1, 1983.

Supporting files to be used with the data base appear as the first and third files on the tape. The first is the data base format and a list of food descriptions and item numbers, which may be used as a coding manual. The third file on the tape links the codes used in the 1963 Agriculture Handbook No. 8 (AH-8) to those used in the updated sections of AH-8. One record is placed in the file for each 1963 AH-8 code for which an updated food record exists. Each record contains the 1963 AH-8 code and its corresponding updated AH-8 code. The 1963 AH-8 code appears as it was used in the tape version of table 1 of that handbook. The first four digits are the same as published in the handbook with a fifth-digit suffix appended. On the USDA Nutrient Data Base for Standard Reference, codes for items from the 1963 AH-8 (food groups not yet revised) have been modified by adding the constant 70000 to the 5 digit code. For example, old code 22300 became 92300. Users may add the constant 70000 to the 1963 AH-8 codes appearing on this data set to make them compatible with the codes on the Standard Reference file. The second code on the record is from the updated version of AH-8. For codes from the old AH-8 that do not match a code in the updated section, no records are in this file.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-5	5	NA	Food item number
6-8	3	NA	Nutrient identification number
9-16	8	3	Mean nutrient value (amount in 100 grams, edible portion)
17-24	8	4	Standard error (amount in 100 grams, edible portion)
25-30	6	NA	Number of observations
31-39	9	3	Value for first specified common measure (column E)
40-48	9	3	Value for second specified common measure (column F)
49-57	9	3	Amount in 1 pound, as purchased

The foods are in ascending order by food identification number. The first record for each food contains a 20-character description in columns 9-28, with the food item number in columns 1-5 and the number 000 instead of a nutrient number in columns 6-8. After the record giving the description of the food are the values for each nutrient for that food in ascending order by nutrient number. The last record for a food has the number 999 in columns 6-8 instead of a nutrient number. This record contains no data values.

USDA Nutrient
Data Base for
Standard Reference,
for Microcomputers

This is a floppy disk version of the USDA Nutrient Data Base for Standard Reference. It has been created for use on a microcomputer and thus has been designed to minimize the data storage requirement while providing all of the information on the tape version of the file.

A description of the field arrangements for items on the records and a list of food descriptions and item numbers, which may be printed for use as a coding manual, appear as the first data set on the disks.

The data in the second data set refer to 100-gram amounts of the edible portion of the food item. Decimal points are included in the fields, and commas are used for delimiters. The file is arranged in ascending order by the food item number and is composed of a header record and a series of data records for

each item. The header record contains the food item code, a description of the food up to 20 characters in length, the gram weights of the measures contained in columns E and F of the publication, the refuse percentages, and the number of composition values contained in the file for that food. There is one data record for each composition value. This record contains the nutrient number, the composition value for the edible portion of 100 grams of the food, the standard error for that composition value, and the number of analyses that were used in deriving that value.

This file is in free format, with the fields separated by commas. It consists of two record types. The first record for a food (Header Record) contains the following fields:

<u>Field Number</u>	<u>Description of Field</u>
1	Food item number
2	Short description
3	Count of nutrient records
4	Description of the first household measure
5	Gram weight of the edible part of a first household measure used for this food
6	Description of the second household measure
7	Gram weight of the edible part for a second household measure
8	Percent refuse

The remaining records for a food (Nutrient Records) contain, in order:

<u>Field Number</u>	<u>Description of Field</u>
1	Nutrient identification number
2	Mean value per 100 grams edible part
3	Standard error
4	Number of observations

USDA Nutrient
Data Base for
Standard Reference,
Abbreviated Version

This data file is a subset of the USDA Nutrient Data Base for Standard Reference. It is intended to replace Nutrient Data Sets 456 and 456-3. It includes data for all food items on the Standard Reference file but is limited to the 21 components listed on the next page. For each food item, the data are present for from one to four different measures as they appear in columns B, E, F, and G in the revised sections of Agriculture Handbook No. 8. Data for 100-gram edible portions are included for all foods.

The other measures that may be present are 1 pound as purchased and one or two common household measures.

The nutrient data base format and a list of food descriptions and item numbers, which may be printed for use as a coding manual, appear as the first data set on the tape. The second data set is the actual data file described above.

The third file on the tape links the codes used in the 1963 Agriculture Handbook No. 8 (AH-8) to those used in the updated sections of AH-8. One record is placed in the file for each 1963 AH-8 code for which an updated food record exists. Each record contains the 1963 AH-8 code and its corresponding updated AH-8 code. The 1963 AH-8 code appears as it was used in the tape version of table 1 of that handbook. The first four digits are the same as published in the handbook with a fifth-digit suffix appended. On the USDA Nutrient Data Base for Standard Reference, codes for items from the 1963 AH-8 (food groups not yet revised) have been modified by adding the constant 70000 to the 5 digit code. For example, old code 22300 became 92300. Users may add the constant 70000 to the 1963 AH-8 codes appearing on this data set to make them compatible with the codes on the Standard Reference file. The second code on the record is from the updated version of AH-8. For codes from the old AH-8 that do not match a code in the updated section, no records are in this file.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-5	5	NA	Food item number
6	1	NA	B = 100 gram value E.P. E = column E value F = column F value G = One pound as purchased
7-26	20	NA	Description
27-32	6	1	Water (percentage)
33-37	5	0	Food energy (kilocalories)
38-43	6	1	Protein (grams)
44-49	6	1	Fat (grams)
50-55	6	1	Carbohydrate (grams)
56-61	6	1	Fiber (grams)
62-67	6	1	Ash (grams)
68-74	7	0	Calcium (milligrams)
75-81	7	0	Phosphorus (milligrams)
82-89	8	1	Iron (milligrams)
90-97	8	1	Sodium (milligrams)
98-105	8	1	Potassium (milligrams)
106-113	8	0	Vitamin A value (International Units)
114-120	7	3	Thiamin (milligrams)
121-127	7	3	Riboflavin (milligrams)
128-134	7	2	Niacin (milligrams)
135-141	7	1	Ascorbic acid (milligrams)
142-147	6	2	Saturated fatty acid (grams)
148-153	6	2	Oleic acid (grams)
154-159	6	2	Linoleic acid (grams)
160-165	6	0	Cholesterol (milligrams)

USDA Nutrient
Data Base for
Standard Reference,
Abbreviated Version
for Microcomputers

This data file is a subset of the USDA Nutrient Data Base for Standard Reference. It is intended to replace the microcomputer version of Data Set 456. It includes data for all food items on the Standard Reference file, but is limited to the 21 components listed below.

The data in the file refer to 100-gram amounts of the edible portion of the food item. Decimal points are included in the fields, and commas are used for delimiters. Leading zeros and blanks in a field have been removed as well as insignificant trailing zeros. The file is arranged in ascending order by the food item number. The maximum record length is 145 characters, although most records are significantly shorter than that.

It is possible to produce the nutrient data for household measures other than 100 grams by the use of the information contained in fields 24, 25 and 26. In fields 24 and 25 are given the gram weights of the edible portion of the two common measurements of the food, shown in columns E and F in the publication. These two measures may vary throughout the standard reference file (referring to 1 pound, one fruit, one package, etc.). These gram weights can be used to derive the composition values of that amount of the food.

The fields on the records are arranged in the following order:

<u>Field Number</u>	<u>Description of Field</u>
1	Food item number
2	Description of food
3	Water (percentage)
4	Food energy (kilocalories)
5	Protein (grams)
6	Fat (grams)
7	Carbohydrate (grams)
8	Fiber (grams)
9	Ash (grams)
10	Calcium (milligrams)
11	Phosphorous (milligrams)
12	Iron (milligrams)
13	Sodium (milligrams)
14	Potassium (milligrams)
15	Vitamin A value (International Units)
16	Thiamin (milligrams)
17	Riboflavin (milligrams)
18	Niacin (milligrams)
19	Vitamin C (milligrams)
20	Saturated fatty acid (grams)
21	Oleic acid (grams)
22	Linoleic acid (grams)
23	Cholesterol (milligrams)
24	Gram weight of household measure # 1
25	Gram weight of household measure # 2
26	Percent refuse

USDA Nutrient
Data Base for
Standard Reference,
Supplement to
Previous Release

This file contains data only for the most recent updates to Agriculture Handbook No. 8. It is provided for those who prefer to update their own data bases without using the complete USDA Nutrient Data Base for Standard Reference.

The format is the same as that used in the USDA Nutrient Data Base for Standard Reference. The data file format and a list of food descriptions and item numbers, which may be printed for use as a coding manual, appear as the first data set on the tape.

The third file on the tape links the codes used in the 1963 Agriculture Handbook No. 8 to those used in the updated sections of AH-8. One record is placed in the file for each 1963 AH-8 code for which an updated food record exists. Each record contains the 1963 AH-8 code and its corresponding updated AH-8 code. The 1963 AH-8 code appears as it was used in the tape version of table 1 of that edition. The first four digits are the same as published in the handbook with a fifth-digit suffix appended. If the old code came from the standard reference file with each code greater than 70000, the user needs to add 70000 to each of the 1963 AH-8 codes in the file to make them compatible. The second code on the record is from the updated version of AH-8. For codes from the old AH-8 that do not match a code in the updated section, no records are in this file.

Data Set 72-1

This data set is published as table 2 of Home and Garden Bulletin No. 72, "Nutritive Value of Foods," revised 1985. Values for food items are described in terms of household measures for the food and are provided for the weight of the household measure. Data are given for 961 food items. A 4 digit food code was sequentially assigned to each food item after the items were placed into food groups. The first 3 digits correspond to the item number in the printed book and the 4th digit, if any number other than zero, indicates that the data were given in a footnote. A 38-character description of the food item is included in each record. A copy of the publication is required for complete descriptions of the food items.

This file is also available in the same format on floppy disks.

The format of the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-4	4	NA	Food item number
5-42	38	NA	Description of food
43-48	6	2	Weight of household measure (grams)
49-51	3	0	Water (percentage)
52-55	4	0	Food energy (kilocalories)
56-57	2	0	Protein (grams)
58-60	3	0	Fat (grams)
61-64	4	1	Saturated fatty acid (grams)
65-68	4	1	Monounsaturated fatty acid (grams)
69-72	4	1	Polyunsaturated fatty acid (grams)
73-76	4	0	Cholesterol (milligrams)
77-79	3	0	Carbohydrate (grams)
80-83	4	0	Calcium (milligrams)
84-87	4	0	Phosphorus (milligrams)
88-90	3	1	Iron (milligrams)
91-94	4	0	Potassium (milligrams)
95-98	4	0	Sodium
99-103	5	0	Vitamin A (International Units)
104-107	4	0	Vitamin A (Retinol Equivalent)
108-110	3	2	Thiamin (milligrams)
111-113	3	2	Riboflavin (milligrams)
114-116	3	1	Niacin (milligrams)
117-119	3	0	Ascorbic acid (milligrams)

USDA Nutrient
Data Base for
Individual Food
Intake Surveys

This is a series of nutrient data bases developed for use in the USDA Nationwide Food Consumption Surveys. The data bases in this series do not correspond to any published set of food composition values; however, each release was developed using data from available revised sections of Agriculture Handbook No. 8 and other up-to-date data.

Food composition values are for 100-gram edible portions of each food. Descriptions for the specific releases list the food components for which data are included. Food items containing a general or nonspecific description, for example, "beef, not further specified," have been assigned nutrient values for a commonly eaten form of the food or for a composite of several forms. Values for most items containing two or more ingredients were calculated from ingredient data using representative recipes. Also present on the data set for each dairy product is the ratio of calcium in the food to calcium in fluid whole milk. Each food item has a unique 7-digit food code. Descriptions of each food are provided in coding manuals (see information on specific

releases). The coding manuals include weights of common measures for each food. Food codes on Releases 1 and 2 are not identical for all foods. A file linking Release 1 codes to Release 2 data is available and is described on page 20.

Release 1

This release was developed for use in the USDA Nationwide Food Consumption Survey 1977-78 (described on page 27). Data are present for food energy and the 14 nutrients listed in the format description below. The coding manual appears as a data set on the tape in a format ready for printing. The format for the nutrient data base is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-7	7	NA	Food code
8-58	51	NA	Description of food
59-62	4	2	Conversion factor
63-68	6	0	Food energy (kilocalories)
69-72	4	1	Protein (grams)
73-76	4	1	Fat (grams)
77-80	4	1	Carbohydrate (grams)
81-85	5	0	Calcium (milligrams)
86-90	5	1	Iron (milligrams)
91-95	5	0	Magnesium (milligrams)
96-101	6	0	Phosphorus (milligrams)
102-108	7	0	Vitamin A (International Units)
109-112	4	2	Thiamin (milligrams)
113-116	4	2	Riboflavin (milligrams)
117-120	4	1	Niacin (milligrams)
121-124	4	2	Vitamin B6 (milligrams)
125-129	5	2	Vitamin B12 (micrograms)
130-134	5	0	Vitamin C (milligrams)

Release 2

This release was developed for use in the Continuing Survey of Food Intake by Individuals, 1985 (described on pages 29 and 30). It contains nutrient values for all food items used for processing data collected for the survey's core monitoring group through September 1985. This release also was used by the National Center for Health Statistics, U.S. Department of Health and Human Services, to process data collected during the Hispanic Health and Nutrition Examination Survey (HHANES) for the Mexican American population in the Southwestern United States.

Release 2 was created by an automated system using three input data sets. These data sets are also available and are described on pages 16-20. One of these data sets is a file of recipes used for data calculations. Recipes containing salt as an ingredient have been calculated both with and without the salt, and both sets of nutrient values appear on the data base. A special field in each record indicates if a set of values has been calculated directly from the recipe or calculated by omitting salt from the recipe. Recipes containing fat as an ingredient or recipes absorbing fat during cooking have been calculated using data for the type of fat specified in the recipe and also by substituting several other types of commonly used fats. For example, a recipe normally using butter was calculated using butter as the ingredient and using four kinds of margarine/margarine-like spreads, animal and vegetable shortenings, and three types of vegetable oils. Complete sets of nutrient values for these different calculations are included in the data set. The type of fat used for each calculation is designated in a field in the data record.

Release 2 includes values for food energy and the 28 food components listed in the format description below. All nutrient values used to generate this data base are contained in the "Primary Nutrient Data Set for USDA Nationwide Food Consumption Surveys (PDS), Release 1" (described on page 16). Nutrient notes about the PDS also apply to Release 2 of this data base.

A second data set on this tape contains the coding manual in a format ready for printing.

The format for the nutrient data base is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-7	7	NA	Food code
8-58	51	NA	Description of food
59-68	10	3	Water (percentage)
69-78	10	3	Food energy (kilocalories)
79-88	10	3	Protein (grams)
89-98	10	3	Total fat (grams)
99-108	10	3	Total saturated fatty acids (grams)
109-118	10	3	Total monounsaturated fatty acids (grams)
119-128	10	3	Total polyunsaturated fatty acids (grams)
129-138	10	3	Cholesterol (milligrams)
139-148	10	3	Carbohydrate (grams)
149-158	10	3	Total dietary fiber (grams)
159-168	10	3	Alcohol (grams)
169-178	10	3	Vitamin A (International Units)
179-188	10	3	Vitamin A (Retinol Equivalents)
189-198	10	3	Carotenes (Retinol Equivalents)
199-208	10	3	Vitamin E (alphatocopherol equivalents in milligrams)
209-218	10	3	Ascorbic acid (milligrams)
219-228	10	3	Thiamin (milligrams)
229-238	10	3	Riboflavin (milligrams)
239-248	10	3	Niacin (milligrams)
249-258	10	3	Vitamin B6 (milligrams)
259-268	10	3	Folacin (micrograms)
269-278	10	3	Vitamin B12 (micrograms)
279-288	10	3	Calcium (milligrams)
289-298	10	3	Phosphorus (milligrams)
299-308	10	3	Magnesium (milligrams)
309-318	10	3	Iron (milligrams)
319-328	10	3	Zinc (milligrams)
329-338	10	3	Copper (milligrams)
339-348	10	3	Sodium (milligrams)
349-358	10	3	Potassium (milligrams)
359-362	4	2	Calcium conversion factor
363-364	2	NA	Fat in cooking code
365	1	NA	Salt in cooking code

Data sets used
to create Release
2 of the USDA
Nutrient Data
Base for Individual
Food Intake Surveys

The following four data sets are contained on one magnetic tape. The first three data sets were used to create the USDA Nutrient Data Base for Individual Food Intake Surveys, Release 2. Data set 4 was created to facilitate public use of the first three data sets.

(1) Primary Nutrient Data Set for USDA Nationwide Food Consumption Surveys (PDS), Release 1. This data set contains values for the same nutrients listed under Release 2 of the USDA Nutrient Data Base for Individual Food Intake Surveys (page 15). The foods include all ingredient items used in recipe calculations for the survey data base. Most of the data are from Release 5 of the USDA Nutrient Data Base for Standard Reference. Some changes were made to reflect current data soon to be used in the revision of Agriculture Handbook No. 8. Nutrient values were added for nutrients not in the Standard Reference Data Base (e.g., total dietary fiber), and complete nutrient profiles were added for missing food items. If analytical data were not available, the added values were imputed from other forms of the foods or were estimated from data for similar foods. The values are for 100 grams of the edible portion of a food. Included with each value is a code to indicate whether or not it is from the Standard Reference Data Base and whether it is based on analytical data or is an imputed value. A date is included with each value not from Release 5 of the Standard Reference Data Base to indicate when it was added to this data set.

All items from the Standard Reference Data Base carry Standard Reference identification numbers, commonly called NDB numbers. Added food items have been assigned special NDB numbers. Data for approximately 2,400 food items are included. A food code manual for this data set is included in the fourth data set on this tape.

Nutrient notes: Values in the data base for carotene are those assumed by HNIS in arriving at the values for total vitamin A and should not be interpreted as representing solely beta-carotene. Values for beta-carotene content of foods have not been reported frequently, and existing reports are often not clear as to whether a value is explicit for beta-carotene or whether it includes other carotenoids. Only limited data are available for vitamin E and dietary fiber. Data for vitamin E (as alpha-tocopherol equivalents) are available mainly for basic staple or commodity food items. Values for dietary fiber generally represent either total dietary fiber by direct determination or the sum of insoluble fiber and soluble fiber in foods for which data exist.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-5	5	NA	Food item number (NDB number)
6-8	3	NA	Nutrient or name identification number
9-16	8	3	Nutrient value (amount in 100 grams edible portion)
17	1	NA	Source code
18	1	NA	Blank
19-24	6	NA	Date nutrient value added to data set (not present for values from USDA Nutrient Data Base for Standard Reference)
25-28	4	NA	Blank (except for name record)

(2) USDA Table of Nutrient Retention Factors, Release 1. This data set contains the factors for calculating retention of 16 vitamins and minerals during food preparation. It is based primarily on the HNIS 1984 "Provisional Table on Percent Retention of Nutrients in Food Preparation," but contains several additional specific categories of foods and cooking methods. Because analytical data on nutrient retention are not available for all nutrients in each specific category, missing factors were estimated to complete the table. Each category has a code for computer access.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-4	4	NA	Retention code
5-39	35	NA	Food category description
40-42	3	2	Calcium retention factor
43-45	3	2	Iron retention factor
46-48	3	2	Magnesium retention factor
49-51	3	2	Phosphorus retention factor
52-54	3	2	Potassium retention factor
55-57	3	2	Sodium retention factor
58-60	3	2	Zinc retention factor
61-63	3	2	Copper retention factor
64-66	3	2	Vitamin C retention factor
67-69	3	2	Thiamin retention factor
70-72	3	2	Riboflavin retention factor
73-75	3	2	Niacin retention factor
76-78	3	2	Vitamin B6 retention factor
79-81	3	2	Folacin retention factor
82-84	3	2	Vitamin B12 retention factor
85-87	3	2	Vitamin A retention factor
88-90	3	2	Vitamin A retention factor
91-93	3	2	Carotenes retention factor

(3) Recipe File for Release 2 of the USDA Nutrient Data Base for Individual Food Intake Surveys. This data set controlled the generation of the survey nutrient data base using the PDS and the table of retention factors. In this file, each survey food code is linked to one or more PDS items through a set of recipe codes. Links to single PDS items are treated as one-component recipes. The file contains approximately 4,450 recipes, approximately half of which are direct links to single items on the PDS.

Each recipe contains two record types: one header record and one or more component records. The record formats are listed below:

Header Record

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1	1	NA	Record type
2	1	NA	Blank
3-9	7	NA	Survey food code
10	1	NA	Blank
11-46	36	NA	Name of food (abbreviated)
47	1	NA	Blank
48-52	5	1	Yield of recipe (cooked weight expressed as percent of uncooked weight)
53	1	NA	Blank
54-58	5	1	Moisture change (percent of uncooked weight)
59	1	NA	Blank
60-64	5	1	Fat change (percent of uncooked weight)
65	1	NA	Blank
66-70	5	NA	Type of fat change (NDB number)
71-80	10	NA	Blank

Component Record Format

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1	1	NA	Record type
2	1	NA	Blank
3-9	7	NA	Survey food code
10	1	NA	Blank
11-12	2	NA	Component number (sequence)
13	1	NA	Blank
14	1	NA	Flag
15	1	NA	Blank
16-22	7	NA	Component's NDB number
23-29	7	NA	Blank
30-54	25	NA	Name
55-58	4	NA	Retention code
59	1	NA	Blank
60-65	6	NA	Measure description
66	1	NA	Blank
67-73	7	3	Weight of measure (grams, edible portion)
74-80	7	NA	Blank

(4) Documentation for data sets used to create Release 2 of the USDA Nutrient Data Base for Individual Food Intake Surveys and Coding Manual for Release 1 of the Primary Nutrient Data Set for USDA Nationwide Food Consumption Surveys. This data set contains (a) documentation for the first 3 data sets on the tape and (b) a coding manual for the first data set on the tape (the PDS).

1977-78 NFCS Food
Codes (Release 1)
Linked to 1985
Nutrient Data
(Release 2)

The Release 1- and 2-Linked Data Base was developed as a supplement to Release No. 1 of the Nutrient Data Base for the USDA Nationwide Food Consumption Survey (NFCS) 1977-78 (described on page 13). Data for the food codes of 1977-78 NFCS are present for food energy and the 28 food components listed in the format description below. The data base contains the 1977-78 food codes assigned to the 1985 nutrient values based on the nutrient data base developed for use in the Continuing Survey of Food Intake by Individuals, Release 2. The nutrient values were derived by matching the food items in the 1977-78 NFCS to the identical or most similar 1985 CSFII food items and linking the appropriate 7-digit food codes.

The purpose of Release 1- and 2-Linked Data Base is to allow use of the 1977-78 NFCS food code system with nutrient values appropriate for 1985. Because the nutrient values are appropriate for 1985, reanalysis of dietary intake data collected before 1985 using this data base must be carefully interpreted. Since 1977-78, new foods have been introduced on the market and the nutrient value of foods has changed as a result of changes in enrichment, fortification, reformulation, etc.

The format for the Data set is as follows:

<u>Columns</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Fields</u>
1-7	7	NA	Food code
8-58	51	NA	Description of food
59-68	10	3	Water (percentage)
69-78	10	3	Food energy (kilocalories)
79-88	10	3	Protein (grams)
89-98	10	3	Total fat (grams)
99-108	10	3	Total saturated fatty acids (grams)
109-118	10	3	Total monounsaturated fatty acids (grams)
119-128	10	3	Total polyunsaturated fatty acids (grams)
129-138	10	3	Cholesterol (milligrams)
139-148	10	3	Carbohydrate (grams)
149-158	10	3	Total dietary fiber (grams)
159-168	10	3	Alcohol (grams)
169-178	10	3	Vitamin A (International Units)
179-188	10	3	Vitamin A (retinol equivalents)
189-198	10	3	Carotenes (retinol equivalents)
199-208	10	3	Alpha-tocopherol (milligrams)
209-218	10	3	Ascorbic acid (milligrams)
219-228	10	3	Thiamin (milligrams)
229-238	10	3	Riboflavin (milligrams)
239-248	10	3	Niacin (milligrams)
249-258	10	3	Vitamin B6 (milligrams)
259-268	10	3	Folacin (micrograms)
269-278	10	3	Vitamin B12 (micrograms)
279-288	10	3	Calcium (milligrams)
289-298	10	3	Phosphorus (milligrams)
299-308	10	3	Magnesium (milligrams)
309-318	10	3	Iron (milligrams)
319-328	10	3	Zinc (milligrams)
329-338	10	3	Copper (milligrams)
339-348	10	3	Sodium (milligrams)
349-358	10	3	Potassium (milligrams)

USDA Nutrient
Data Base for
Household Food
Use Surveys

This nutrient data base contains 3,836 food items reported as used by households in the USDA Nationwide Food Consumption Survey, 1977-78 (pages 27-30). Food composition values for 1 pound of food (as purchased) are given for food energy and 14 nutrients. Cooking losses have been deducted for vitamin A, thiamin, riboflavin, niacin, vitamin B6, vitamin B12, and vitamin C. Also provided are factors for converting the weight of milk products to equivalent weights of milk based on calcium content, the weight of bakery products to flour equivalents, and the weight of soft drinks to sugar equivalents. Other equivalents are

based on the corresponding weight of fresh potatoes, eggs in shell, single-strength juice, dry legumes, or shelled nuts.

Most of the data on nutrients were derived from Agriculture Handbook No. 8 and its revised supplements. Some values from these sources were updated on the basis of new food composition research, information from industry about new food products, and new regulations on the enrichment of food. The first data sets on the tape provided are print files for the data file formats and a food code manual that includes a unique 15-digit code for each food item reported in the survey and a description of the food.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-15	15	NA	Food code
16-39	24	NA	Abbreviated food description
40-43	4	2	Conversion factor
44-50	7	0	Food energy (kilocalories)
51-54	4	1	Protein (grams)
55-58	4	1	Fat (grams)
59-62	4	1	Carbohydrate (grams)
63-68	6	0	Calcium (milligrams)
69-72	4	1	Iron (milligrams)
73-78	6	0	Magnesium (milligrams)
79-84	6	0	Phosphorous (milligrams)
85-92	8	0	Vitamin A (International Units)
93-96	4	2	Thiamin (milligrams)
97-100	4	2	Riboflavin (milligrams)
101-104	4	1	Niacin (milligrams)
105-108	4	2	Vitamin B6 (milligrams)
109-113	5	2	Vitamin B12 (micrograms)
114-119	6	0	Vitamin C (milligrams)
120	1	NA	Blank

Data set 102-1

This set contains data on food yields and losses in preparation for 2,894 items published in table 1 of "Food Yields...Summarized Different Stages of Preparation," Agriculture Handbook No. 102, revised September 1975.

Information in this publication serves as the principal basis for the values for refuse in the revision of Agriculture Handbook No. 8. Yields of prepared food (weight after preparation as percent of weight prior to preparation) as well as the percentage change

in weight for up to nine variations in preparation are provided for each food item. An item number identifies each food described in AH-102. No descriptions are contained in this file. AH-102 is available upon request from the U.S. Department of Agriculture, Human Nutrition Information Service, Nutrition Information Service, Nutrition Monitoring Division, Room 325A, Federal Building, Hyattsville, MD 20782.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-4	4	NA	Food Item Number
			Yield After Preparation (%)
5-8	4	0	Variation 1
9-12	4	0	Variation 2
13-16	4	0	Variation 3
17-20	4	0	Variation 4
21-24	4	0	Variation 5
25-28	4	0	Variation 6
29-32	4	0	Variation 7
33-36	4	0	Variation 8
37-40	4	0	Variation 9
			Loss or Gain in Preparation (%)
41-44	4	0	Variation 1
45-48	4	0	Variation 2
49-52	4	0	Variation 3
53-56	4	0	Variation 4
57-60	4	0	Variation 5
61-64	4	0	Variation 6
65-68	4	0	Variation 7
69-72	4	0	Variation 8
73-76	4	0	Variation 9

Data Base for
Pilot Study of
Nutrient Content
of School Lunches

This is a sequential data set used to load a direct access data file. It was developed for schools participating in a USDA Food and Nutrition Service pilot test to analyze the nutrient content of school lunches. The software, documentation, and manuals will not be available until modification and testing have been completed and the system approved for use in schools. This data set is also subject to change during development.

The file contains 1,044 foods commonly used in the preparation of school lunches. Information contained in each food record includes a brief description, nutritive values per 100 grams of edible part, retention factor index, edible part factor, in most cases the gram weight of 1 cup of the food, and in many cases the gram weight of a nonstandard unit of measure.

The retention factor index sends the user to a specific record in a table of nutrient retention factors that are to be applied when a food product is cooked. Edible part factors are applied when a food ingredient weight includes an inedible part such as peel, core, or bones. The nonstandard unit weight is the gram weight of food products in a common serving measure such as bread slice or peach half.

The format for the data set is as follows:

<u>Column</u>	<u>Field Width</u>	<u>Number of Decimal Places</u>	<u>Description of Field</u>
1-4	4	0	Food code
5-24	20	0	Food description
25-31	7	2	Food energy (kilocalories)
32-38	7	2	Protein (grams)
39-45	7	2	Calcium (milligrams)
46-52	7	2	Iron (milligrams)
53-59	7	2	Vitamin A value (International Units)
60-66	7	2	Thiamin (milligrams)
67-73	7	2	Riboflavin (milligrams)
74-80	7	2	Vitamin C (milligrams)
81-82	2	0	Retention factor index
83-85	3	2	Edible part factor
86-89	4	0	Cup weight or zero
90-94	5	0	Nonstandard unit weight

Dietary Analysis Program for the PC

USDA's Human Nutrition Information Service (HNIS) in cooperation with the Extension System, has developed a dietary analysis software package for use with consumers. The program analyzes up to 3 days of food intake for food energy (calories) and 27 nutrients and food components. The following analysis results can be viewed on the screen or printed in hardcopy form:

- 1) A complete list of foods and quantities reported;
- 2) Bar graphs showing the percentage of user's Recommended Dietary Allowances for 15 nutrients;
- 3) Totals (in grams or milligrams) for fat, fatty acids (saturated, polyunsaturated, monounsaturated), cholesterol, fiber, sodium, potassium, and copper;
- 4) The percentage of calories from protein, carbohydrate, fat and alcohol;
- 5) Totals (in grams, milligrams, or micrograms) for user-selected nutrients in single foods and reported diets.

Approximately 850 foods that are commonly reported in USDA food consumption surveys are included in the program database. The program uses a menu-entry approach for entering foods. Foods are selected from common food groups; quantities are estimated using familiar household measures and other typical serving units.

The USDA program was designed as an educational tool to provide Extension clients and other consumers with a relatively quick and easy nutritional analysis of their diets. It can also be used to identify the major food sources of particular nutrients and to look at how alternative food selections would affect nutrient intakes.

This program requires MS-DOS version 2.1 or higher, 256K of memory (either 2 5 1/4" disk drives at 360K each or 1 MByte of fixed disk).

Food Composition Data Sets

Data sets available in machine-readable form from the National Technical Information Service are listed below with NTIS accession number and cost. Ordering instructions begin on page 44.

<u>Computer Tapes</u>	<u>Accession Number</u>	<u>Price Codes</u>
USDA Nutrient Data Base for Standard Reference, Release 9, 1990.....	PB90-502717	T02
USDA Nutrient Data Base for Standard Reference, Abbreviated Version, Release 9, 1990.....	PB90-502568	T02
USDA Nutrient Data Base for Standard Reference, Update to Release 8; Section 13 from Agriculture Handbook No. 8.....	PB90-502550	T02
Nutritive Value of Foods, in Home & Garden Bulletin No. 72, Revised 1990.....	PB91-506956	T02
USDA Nutrient Data Base for Individual Food Intake Surveys		
Release 1, 1980.....	PB82-138504/HBF	T02
Release 2, 1986.....	PB86-206299/HBF	T02
Release 2.1 1986.....	PB87-181020	T02
Release 3.....	*	
Release 4.....	*	
Data sets used to create Release 2 of USDA Nutrient Data Base for Individual Food Intake Surveys (four data sets on one tape).....	PB86-206281/HBF	T02
Data sets used to create Release 3 of USDA Nutrient Data Base for Individual Food Intake Surveys (four data sets on one tape).....	*	

*Not yet available

**Price codes can be found in the back of this broucher

<u>Computer Tapes (continued)</u>	<u>Accession Number</u>	<u>**Price Codes</u>
Data sets used to create Release 4 of USDA Nutrient Data Base for Individual Food Intake Surveys (four data sets on one tape).....	*	
1977-78 NFCS Food Codes (Release 1) Linked to 1985 Nutrient Data (Release 2).....	PB87-142451	T02
USDA Nutrient Data Base for Household Food Use Surveys.....	PB82-138496/HBF	T02
Data Set 102-1.....	PB81-146730/HBF	T02
Data Base for Pilot Study of Nutrient Content of School Lunches.....	PB84-196906/HBF	T02

	<u>5 1/4"</u> <u>Diskettes</u> <u>(360KB)</u>	<u>Price</u> <u>Codes</u>	<u>5 1/4"</u> <u>Diskettes</u> <u>(1.2MB)</u>	<u>Price</u> <u>Codes</u>
USDA Nutrient Data Base for Standard Reference, for Microcomputers, Release 9 (1990)....	PB90-502451	D06	PB90-502584	D06
USDA Nutrient Data Base for Standard Reference, for Abbreviated Version for Microcomputers, Release 9 (1990)....	PB90-502496	D04	PB90-502535	D04
Nutritive Value of Foods, in Home & Garden Bulletin No. 72, Revised 1990.....	PB91-506915	D01	PB91-506923	D01
USDA Nutrient Data Base for Standard Reference, for Microcomputers. Update to Release 8.....	PB90-502477	D04	PB90-502592	D04
Dietary Analysis Program for PC.....	PB90-501826	N01	PB90-504101	N01

	<u>3 1/2"</u> <u>Diskettes</u> <u>(720K)</u>	<u>Price</u> <u>Codes</u>	<u>3 1/2"</u> <u>Diskettes</u> <u>(1.44M)</u>	<u>Price</u> <u>Codes</u>
USDA Nutrient Data Base for Standard Reference, for Microcomputers, Release 9 (1990)....	PB90-502493	D07	PB90-502527	D08

*Not yet available

**Price codes can be found in the back of this broucher

(3 1/2" Diskettes Continued)

	<u>3 1/2"</u> <u>Diskettes</u> <u>(720K)</u>	<u>Price</u> <u>Codes</u>	<u>3 1/2"</u> <u>Diskettes</u> <u>(1.44M)</u>	<u>**Price</u> <u>Codes</u>
USDA Nutrient Data Base for Standard Reference, for Microcomputers, Release 9 (1990)....PB90-502493		D07	PB90-502527	D08
USDA Nutrient Data Base for Standard Reference, for Abbreviated Version for Microcomputers, Release 9 (1990)....PB90-502501		D05	PB90-502543	D05
Nutritive Value of Foods, in Home & Garden Bulletin No. 72, Revised 1990.....PB91-506931		D01	PB91-506949	D01
USDA Nutrient Data Base for Standard Reference, for Microcomputers. Update to Release 8.....PB90-502485		D05	PB90-502519	D06
Dietary Analysis Program for PC.....PB90-504085		N01	PB90-504093	N01

**Price codes can be found in the back of this broucher

FOOD CONSUMPTION SURVEYS

Surveys by the Human Nutrition Information Service provide information on food consumption at two levels: food used from the home food supply by households (household food use); and food intakes by individual household members both at home and away from home (individual intake). The decennial Nationwide Food Consumption Surveys (NFCS) of 1987-88 and 1977-78 provide both types of data, while the smaller Continuing Survey of Food Intakes by Individuals (CSFII conducted in 1985, 1986, 1989, 1990, 1991 provide individual intake data only. In 1989, HNIS introduced a new survey called the Diet and Health Knowledge Survey (DHKS). The DHKS is the first national survey specifically designed to determine how peoples' attitudes and knowledge about healthy eating influence their food choices and, as a result, their nutrient intakes. It is being conducted as a telephone follow-up to selected respondents in the CSFII.

NFCS 1977-78

NFCS 1977-78 was the sixth of USDA's nationwide surveys. The Basic sample was a multi-stage, stratified probability sample of all households in the conterminous United States. Within the Basic sample, four independent interpenetrating samples were drawn and implemented in four separate quarters (seasons) of data collection.

In addition to the Basic survey, several supplemental surveys were conducted: Households containing one or more elderly persons (Elderly); households in Puerto Rico, Alaska, and Hawaii; and households eligible for the Food Stamp Program (Low-Income).

The dates of data collection and the sample sizes are as follows:

<u>Sample</u>	<u>Dates</u>	<u>Sample size</u>	
		<u>House-</u> <u>holds</u>	<u>Individ-</u> <u>uals</u>
Basic	April 1977 - March 1978	14,930	30,770
Spring	April - June 1977	3,322	8,778
Summer	July - September 1977	3,468	6,584
Fall	October - December 1977	4,071	7,696
Winter	January - March 1978	4,069	7,712
Elderly	April 1977 - March 1978	4,918	8,036
Puerto Rico	July 1977 - December 1977	3,040	7,950
Alaska	January, February, March 1978	1,131	2,393
Hawaii	January, February, March 1978	1,256	3,086
Low-income I	November 1977 - March 1978	4,623	12,847
Low-income II	November 1979 - March 1980	3,002	9,123

For the 1977-78 low-income sample (Low-Income I), households within selected areas were screened to determine eligibility for interview. Eligible households were those receiving food stamps or eligible to receive food stamps. Screening information included income adjusted to account for household composition, certain expenses, and assets. In all, more than 32,409 households were screened, and interviews were completed with

4,623 eligible households. Information for a second low-income sample (Low-Income II) was collected from 3,002 households in 1979-80 to reflect changes in the food stamp program. This survey was conducted from November 1979 through March 1980, exactly 2 years after the 1977-78 survey.

The NFCS 1977-78 basic and supplemental surveys included information on the following:

Household food use.--The person with major responsibility for planning or preparing meals was interviewed about food used by the household during the previous 7 days. This person was notified in advance of the survey and advised to keep grocery receipts and other reminders of food used. The interviewer asked which foods from a list were used, and the respondent indicated the kind, amount, source (purchased, homeproduced, gift or pay), and (if purchased) the price. These foods were analyzed for food energy and 14 nutrients. Other information that was obtained included the sex and age of each household member; the number of morning, noon, and evening meals each had during the week from home food supplies and away from home; and the expense for meals and snacks bought away from home. In addition, counts of guest meals and snacks were recorded, because they affect household food use.

Individual intakes.--In the basic survey and all supplemental surveys except Elderly and the Low-Income II, the individual intake component included a 1-day recall (of food eaten on the day before the interview), and a 2-day record (of food eaten the day of and the day following the interview). The Elderly and the Low-Income II sample included only a 1-day recall. In the spring portion of the Basic survey and in all supplemental surveys, all members of sample households provided information. In the summer, fall, and winter of the Basic survey, data was obtained for all household members under 19 years of age but for only half of household members 19 years or over.

Each respondent provided information on his or her own intake, except for children under 12 years of age whose intake was usually reported by the household respondent. The individual estimated the amount ingested and reported the name of the eating event (breakfast, lunch, dinner, supper, snack, etc.), the time the eating event began, with whom it was eaten (alone, other household member, nonhousehold member), and where it was eaten (someone else's home, restaurant, fast-food place, school, etc.). For food bought and eaten away from home, the kind of service (waiter/waitress, counter, cafeteria, vending machine, carryout) and amount paid were recorded. Each individual also was asked about health status, height and weight, water consumption, and use of vitamin and mineral supplements. Each told whether he was on a weight-reduction or other special diet or was a vegetarian.

Socioeconomic data.--A variety of household characteristics, such as amount and source of income of household members; employment and education of male and female heads; housing costs; and food shopping practices were collected. Data were classified by the location of the household with respect to four regions (Northeast, North Central, South, and West) and three urbanization classes (central city, suburban, and nonmetropolitan). Information also was obtained on participation in food assistance programs: food stamps, school breakfast and school lunch, meals for the elderly, and the Supplemental Food Program for Women, Infants, and Children (WIC).

CSFII 1985 and
CSFII 1986

The core of the CSFII is a national sample of women 19 to 50 years of age and their children 1 to 5 years of age in the 48 conterminous States. This sample, "core monitoring group," was selected because previous surveys have shown that women and young children are more likely than other population groups to have diets low in certain nutrients. The CSFII 1985 also includes a sample of low-income women and children in the same age ranges as the core monitoring group and a sample of adult men 19 to 50 years of age. The CSFII 1986 includes two samples: women and children of all incomes (the core monitoring group) and low-income women and children.

The CSFII contains many basic features of the individual intake component of the NFCS 1977-78, but differs in certain ways:

- o The NFCS 1977-78 survey consisted of a 1-day recall followed by a 2-day diary; the CSFII consists of six 1-day recalls from each respondent in the core and low-income samples (collected at roughly 2 month intervals). Only one 1-day recall was collected from men. The structure of the 1-day recall was similar to that used in the NFCS 1977-78.
- o The NFCS 1977-78 data were collected using personal interviews; the CSFII data were collected using both personal interview for the first 1-day recall and telephone interviews for subsequent recalls.
- o The CSFII includes information not obtained in the NFCS 1977-78 survey including more specific information about the use of fat and salt.
- o The NFCS 1977-78 data were analyzed for 14 nutrients and dietary constituents; the CSFII 1985 data were analyzed for 28.

CSFII 1985--dates of collection and sample sizes are as follows:

<u>Sample</u>	<u>Dates</u>	<u>Sample size</u> (Individuals)	
		weighted	unweighted
Core: (6 days)	April 1985-March 1986		
Women		1,503	1,459*
Children		550	459*
Low-income: (6 days)	April 1985-March 1986		
Women		2,120	2,081*
Children		1,314	1,170*
Men: (1 day)	July-November 1985	1,134	658

CSFII 1986--dates of collection and sample sizes are as follows:

<u>Sample</u>	<u>Dates</u>	<u>Sample size</u> (Individuals)	
		weighted	unweighted
Core: (6 days)	April 1986-March 1987		
Women		1,510	1,451*
Children		547	509*
Low-income: (6 days)	April 1986-March 1987		
Women		1,329	1,320*
Children		828	762*

* Not all women and children provided all 6 days of dietary data.

NFCS 1987-88 was the seventh of USDA's decennial nationwide surveys. Data collection began in April 1987 and continued through August 1988. As in NFCS 1977-78, the 1987-88 survey included two components: (1) household food use during a 7-day period, and (2) individual intakes by household members for a 3-day period. Both the household and the individual data were collected in personal interviews by trained interviewers. The household component was conducted with the aid of a laptop computer. The information collected in the household component, the individual component, and the socioeconomic data are similar to that collected in NFCS 1977-78 and described on page 30. Data were analyzed for food energy and 28 nutrients and dietary components.

NFCS 1987-88 consisted of a multi-stage area probability sample drawn from the 48 conterminous States. The sample size for the two components is as follows:

Household component

Households with completed food use
questionnaires ----- 4,495

Individual intake component

Individuals providing 1-day intakes ----- 10,172
Individuals providing 3-day intakes ----- 8,468

The response rates for the 1987-88 NFCS were very low, approximately 38 percent for the household component of the survey and 31 percent for the 1-day individual intake component. This means that about three of every eight occupied households selected for interviewing were contacted and participated. Within these households, 81 percent of the eligible individuals provided at least one day of intake data.

An independent Expert Panel convened to assess the impact of nonresponse in the NFCS concluded, and HNIS concurs, that it is not possible, based on the information available, to establish the presence or absence of nonresponse bias. However, the likelihood of such bias can not be disregarded. Nor is it possible to determine objectively the extent to which nonresponse bias might influence interpretations of analyses using these data.

The Expert Panel concluded that between-group comparisons are possible but must be made with the recognition that the respondents may not be completely representative of the subgroups. The Panel also concluded that use of the data for estimates of specific foods or food groups, estimates of upper percentiles of intake, or estimates of intakes of subgroups for which the cell size is small is particularly questionable.

HNIS suggests that users of these data carefully balance their need and the tolerance for error in their specific application against the potential for nonresponse bias in the 1987-88 dataset. Whenever possible, confirmatory data from other sources should be sought to support estimates based on analysis of these data.

These surveys are nationwide probability samples of the conterminous United States. For each year, the total sample is 2,250 households including both all income and low income households. Individuals in households that are part of the sample are asked to provide a 1-day dietary recall followed by a 2-day record of food eaten both at home and away from home. This methodology is similar to that used in the NFCS 1987-88 but differs from that used in the 1985 and 1986 CSFII in which individuals were asked to provide a 1-day recall on 6 different days over a 1-year period approximately every 2 months.

The DHKS is a telephone follow-up to the CSFII. About six weeks after participating in the CSFII, the person in the household identified as the main meal-planner/preparer was recontacted and asked a series of about 36 questions. Most of the interviews were conducted from a centralized WATS facility using a computer-assisted interview.

No data are available from these surveys yet.

Survey Publications

Two types of survey publications are available--those presenting results on household use of food and those presenting results on individual intake. Socioeconomic variables are included in both sets of publications. Publications from NFCS 1977-78 and CSFII 85-2 through 86-4 are currently out of print at the Government Printing Office, but are available from the National Technical Information Service. See page 44 through 47 for ordering instructions and other necessary information required to complete order form.

	<u>Publication (NTIS)</u>	<u>Stock number</u>	<u>**Price Codes</u>
<u>NFCS 1977-78:</u> <u>Household Use</u> <u>of Food</u>	H-1 Food Consumption: Households in the United States, Spring 1977. 1982. 296 pp.....	PB91-104174/AS	A10 through A13 A02
	H-2 Food Consumption: Households in the Northeast, Spring 1977. 1982. 301 pp.....	PB91-105387	A14 through A17 A02
	H-3 Food Consumption: Households in the North Central Region, Spring 1977. 1982. 301 pp.....	PB91-103671	A14 through A17 A02
	H-4 Food Consumption: Households in the South, Spring 1977. 1982. 301 pp.....	PB91-104208	A14 through A17 A02
	H-5 Food Consumption: Households in the West, Spring 1977. 1982. 301 pp.....	PB91-103655	A14 through A17 A02
	H-6 Food Consumption: Households in the United States, Seasons and Year 1977-78. 1983. 309 pp.....	PB91-105379	A14 through A17 A02
	H-7 Food Consumption: Households in the Northeast, Seasons and Year 1977-78. 1983. 311 pp.....	PB91-104190/AS	A14 through A17 A02
	H-8 Food Consumption: Households in the North Central Region, Seasons and Year 1977-78. 1983. 311 pp.....	PB91-104166	A14 through A17 A02
	H-9 Food Consumption: Households in the South, Seasons and Year 1977-78. 1983. 311 pp.....	PB84-171768	A14 through A17 A01
	H-10 Food Consumption: Households in the West, Seasons and Year 1977-78. 1983. 311 pp.....	PB91-105874	A14 through A17 A02
	H-11 Dietary Levels: Households in the United States, Spring 1977. 1985. 188 pp.....	PB91-103515	A06 through A09 A01
	H-12 Dietary Levels: Households in the Northeast, Spring 1977. 1985. 188 pp.....	PB91-105361	A06 through A09 A01

(Note: The first price code for the publications listed is for the paper copy, and the second price code listed is for the microfiche.)

**Price codes can be found in the back of this brochure

NFCS 1977-78: continued
Household Use
of Food

<u>Publication</u>	<u>Stock number</u>	<u>**Price Codes</u>
H-13 Dietary Levels: Households in the North Central Region, Spring 1977. 1985. 188 pp.....	PB91-105841	A06 through A09 A01
H-14 Dietary Levels: Households in the South, Spring 1977. 1985. 188 pp.....	PB91-103663	A06 through A09 A01
H-15 Dietary Levels: Households in the West, Spring 1977. 1985. 188 pp.....	PB91-105395	A06 through A09 A01

NFCS 1977-78
Individual
Intake

I-1 Food Intakes: Individuals in 48 States, Year 1977-78. 1984. 617 pp.....	PB91-103523	A99
I-2 Nutrient Intakes: Individuals in 48 States, Year 1977-78. 1984. 439 pp.....	PB91-105866	A18 through A21 A03
I-3 Food and Nutrient Intakes: Individuals in Four Regions, 1977-78. 1985. 533 pp.....	PB91-105858	A22 through A25 A03

(A limited number of the above reports as well as reports on the Hawaii, Alaska, Puerto Rico, and low income supplemental surveys are available by writing to the Food Consumption Research Branch, Human Nutrition Information Service, Federal Building, Hyattsville, MD 20782.)

(Note: The first price code for the publications listed is for the paper copy, and the second price code listed is for the microfiche.)

<u>Publication (NTIS)</u>	<u>Accession Number</u>	<u>Price Codes</u>
CSFII 1985 <u>Individual</u> <u>Intake</u>		
85-2 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Low-Income Women 19-50 Years and Their Children 1-5 Years, 1 Day, 1985. 186 pp		
Paper.....	PB88-110127/AS	A06 through A09
Microfiche.....	PB88-110127/AS	A01

**Price codes can be found in the back of this brochure

CSFII 1985: continued
Individual
Intake

<u>Publication (NTIS)</u>	<u>Accession Number</u>	<u>**Price Codes</u>
85-3 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Men 19-50 Years, 1 Day, 1985. 94 pp.		
Paper.....	PB87-184008	A06 through A09
Microfiche.....	PB87-184008	A01
85-4 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Women 19-50 Years and Their Children 1-5 Years, 4 Days, 1985. 182 pp		
Paper.....	PB88-110101/AS	A06 through A09
Microfiche.....	PB88-110101/AS	A01
85-5 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Low-Income Women 19-50 Years and Their Children 1-5 Years, 4 Days, 1985. pp		
Paper.....	PB88-246202/AS	A10 through A13
Microfiche.....	PB88-246202/AS	A01

CSFII 1986:
Individual
Intake

86-1 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Women 19-50 Years and Their Children 1-5 years, 1 day, 1986. 98 pp.		
Paper.....	PB87-184016	A06 through A09
Microfiche.....	PB87-184016	A01
86-2 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Low-Income Women 19-50 Years and Their Children 1-5 Years, 1 Day, 1986. 166 pp.		
Paper.....	PB88-110119/AS	A06 through A09
Microfiche.....	PB88-110119/AS	A01
86-3 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Women 19-50 Years and Their Children 1-5 Years, 4 Days, 1986. pp.		
Paper.....	PB89-151708/AS	A06 through A09
Microfiche.....	PB89-151708/AS	A01

**Price codes can be found in the back of this brochure

CSFII 1986: continued
Individual
Intake

<u>Publication (NTIS)</u>	<u>Accession Number</u>	<u>**Price Codes</u>
86-4 Nationwide Food Consumption Survey: Continuing Survey of Food Intakes by Individuals, Low-Income Women 19-50 Years and Their Children 1-5 Years, 4 Days, 1986. pp.		
Paper.....	PB89-179485/AS	A10 through A13
Microfiche.....	PB89-179485/AS	A01

* Not released yet

** Price codes can be found in the back of this brochure

Survey Data sets and Microfiche

Two types of data sets are available--those presenting results on household use of food and those presenting results on individual intake. Socioeconomic variables are included in both types. Ordering instructions begin on page 44.

	<u>Data set</u>	<u>Accession Number</u>	<u>** Price Codes</u>
<u>NFCS 1977-78</u> <u>Household Data</u>	Spring Basic Household Food Consumption Survey, 1977-78.....	PB80-190176/HBF	T03
	Summer Basic Household Food Consumption Survey, 1977-78.....	PB80-197411/HBF	T03
	Fall Basic Household Food Consumption Survey, 1977-78.....	PB80-200215/HBF	T03
	Winter Basic Household Food Consumption Survey, 1977-78.....	PB80-202542/HBF	T03
	Puerto Rico Household Food Consumption Survey, 1977-78.....	PB82-138454/HBF	T03
	Alaska Household Food Consumption Survey, 1977-78.....	PB81-146763/HBF	T02
	Hawaii Household Food Consumption Survey, 1977-78.....	PB81-146755/HBF	T02
	Elderly Household Food Consumption Survey, 1977-78.....	PB83-137281/HBF	T02
	Low-Income I, Household Food Consumption Survey, 1977-78.....	PB81-114399/HBF	T02
	Low-Income II, Household Food Consumption Survey, 1979-80.....	PB82-138470/HBF	T02
<u>NFCS 1977-78</u> <u>Individual</u> <u>Intake Data</u>	Spring Basic Individual Food Intake Survey, 1977-78.....	PB80-190218/HBF	T05
	Summer Basic Individual Food Intake Survey, 1977-78.....	PB80-197429/HBF	T04
	Fall Basic Individual Food Intake Survey, 1977-78.....	PB80-200223/HBF	T05

**Price codes can be found in the back of this brochure

<u>Data set</u>	<u>Accession Number</u>	<u>** Price Codes</u>
Winter Basic Individual Food Intake Survey, 1977-78.....	PB81-118853/HBF	T05
Puerto Rico Individual Food Intake Survey, 1977-78.....	PB82-138462/HBF	T04
Alaska Individual Food Intake Survey, 1977-78.....	PB81-162539/HBF	T02
Hawaii Individual Food Intake Survey, 1977-78.....	PB81-146771/HBF	T02
Low-Income I, Individual Food Intake Survey, 1977-78.....	PB81-118838/HBF	T06
Low-Income II, Individual Food Intake Survey, 1979-80.....	PB82-138488/HBF	T03
Spring Individual Food Intake, 1965.....	PB80-195415/HBF	T03
Spring and Summer Elderly Individual Food Intake Survey, 1977-78....	PB83-134023/HBF	T02
Fall and Winter Elderly Individual Food Intake Survey, 1977-78.....	PB86-206307/HBF	T02

CSFII 1985 and 1986:
Individual
Intake Data sets
and Microfiche

All data sets include the following: a description of the survey methodology; data set characteristics and format; control counts for selected variables; food and nutrient intake data; a 51-character food description file; and a manual of food codes used for translating food intakes into nutrient intakes. The paper copy that comes with each data set includes all the above material except for the food and nutrient intake data. It also contains copies of the survey instruments (interviewer's instruction manual, screening forms and questionnaires, and a food instruction booklet.) The microfiche version of the paper copy may be ordered separately.

<u>Data set</u>	<u>Accession Number</u>	<u>Price Codes</u>
CSFII 85-1: Women 19 to 50 Years and Their Children 1 to 5 Years, 1 Day, 1985		
Data Set (includes paper copy)...	PB86-171006	T03
Microfiche only.....	PB86-170990	A01
Paper copy of microfiche.....	PB86-170990	A99

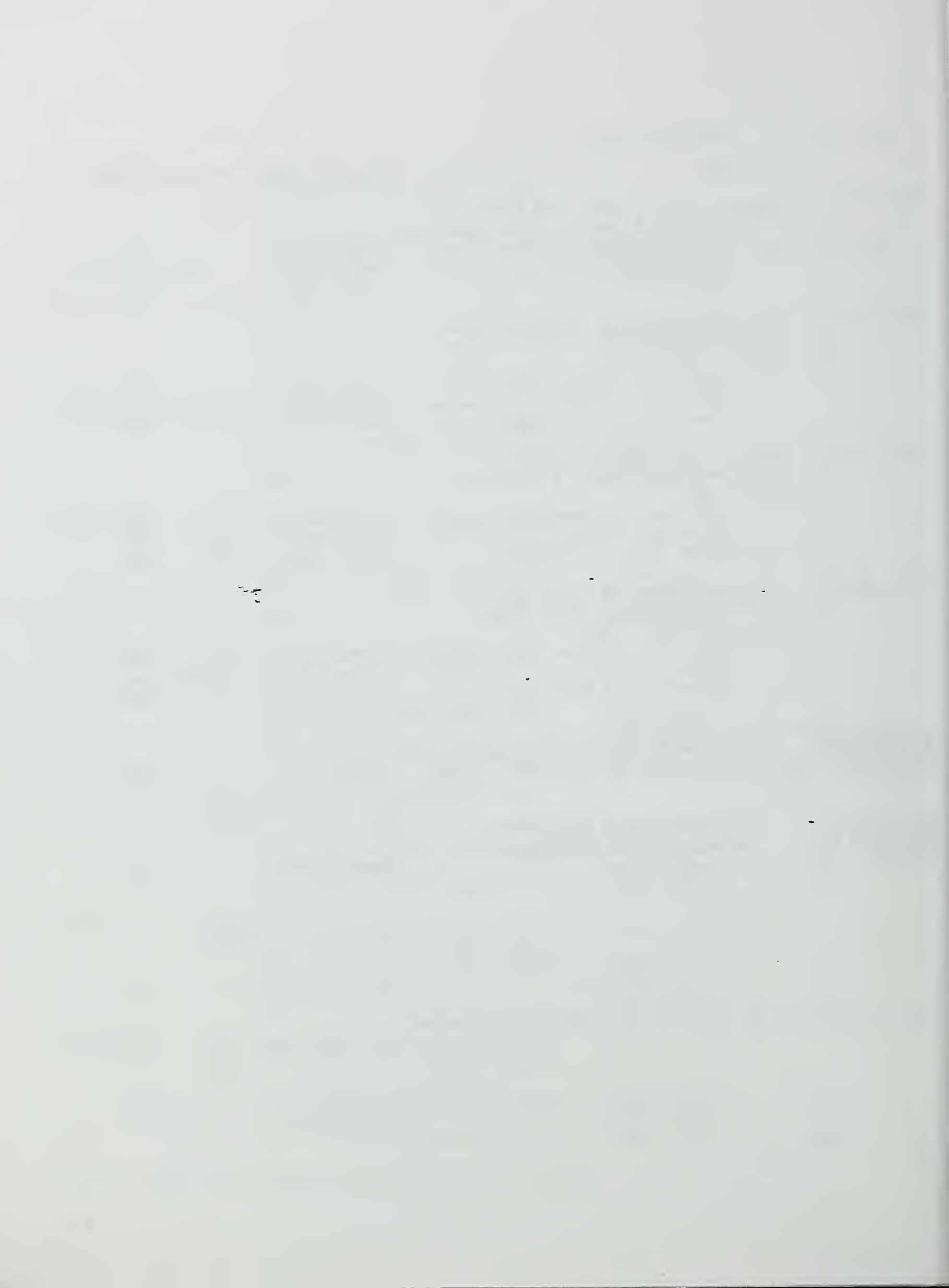
**Price codes can be found in the back of this brochure

	<u>Data set</u>	<u>Accession Number</u>	<u>** Price Codes</u>
CSFII 85-2:	Low-Income Women 19 to 50 Years and Their Children 1 to 5 Years, 1 Day, 1985		
	Data set (includes paper copy)...	PB87-197158	T03
	Microfiche only.....	PB87-134722	A04 through A05
	Paper copy of microfiche.....	PB87-134722	A99
CSFII 85-3:	Men 19 to 50 Years, 1 Day, 1985.....		
	Data set (includes paper copy)...	PB87-197141	T03
	Microfiche only.....	PB87-194049	A99
	Paper copy of microfiche.....	PB87-194049	A01
CSFII 85-4:	Women 19 to 50 Years, and Their Children 1 to 5 Years, 4 Days, 1985		
	Data set (includes paper copy)...	PB88-201249	T03
	Microfiche only.....	PB88-201256	A99
	Paper copy of microfiche.....	PB88-201256	A99
CSFII 85-5:	Low-income Women 19 to 50 Years, and Their Children 1 to 5 Years, 4 Days, 1985		
	Data set (includes paper copy)...	PB88-245121	T03
	Microfiche only.....	PB88-245113	A99
	Paper copy of microfiche.....	PB88-245113	A99
CSFII 85-6:	Women 19-50 Years, and Their Children 1-5 Years, 6 Waves of Data, 1985		
	Data set (includes paper copy)...	PB88-122411	T03
	Microfiche only	PB88-100227	A14 through A17
	Paper copy of microfiche.....	PB88-100227	A99
CSFII 85-7:	Low-Income Women 19-50 Years, and Their Children 1 to 5 Years, 6 Waves of Data, 1985		
	Data set (includes paper copy)...	PB89-154330	T03
	Microfiche only.....	PB89-154348	A99
	Paper copy of microfiche.....	PB89-154348	A99
CSFII 86-1:	Women 19 to 50 Years and Their Children 1 to 5 Years, 1 Day, 1986		
	Data set (includes paper copy)...	PB88-117767	T03
	Microfiche only.....	PB88-100219	A99
	Paper copy of microfiche.....	PB88-100219	A99
CSFII 86-2:	Low-Income Women 19 to 50 Years and Their Children 1 to 5 Years, 1 Day, 1986		
	Data set (includes paper copy)...	PB89-124382	T03
	Microfiche only.....	PB89-124390	A99
	Paper copy of microfiche.....	PB89-124390	A99

**Price codes can be found in the back of this brochure

	<u>Data set</u>	<u>Accession Number</u>	<u>** Price Codes</u>
CSFII 86-3:	Women 19 to 50 Years, and Their Children 1 to 5 Years, 4 Days, 1986		
	Data set (includes paper copy)..	PB89-154355	T03
	Microfiche only.....	PB89-154363	A14 through A17
	Paper copy of microfiche.....	PB89-154363	A99
CSFII 86-4:	Low-Income Women 19 to 50 Years and Their Children 1 to 5 Years, 4 Days, 1986		
	Data set (includes paper copy)..	PB89-205520	T03
	Microfiche only.....	PB89-205538	A14 through A17
	Paper copy of microfiche.....	PB89-205538	A99
CSFII 86-5:	Women 19 to 50 Years and Their Children 1 to 5 Years, 6 Waves of Data, 1986		
	Data set (includes paper copy)..	PB89-154371	T03
	Microfiche only.....	PB89-154389	A99
	Paper copy of microfiche.....	PB89-154389	A99
CSFII 86-6	Low-Income Women 19 to 50 Years, and Their Children 1 to 5 Years, 6 Waves of Data, 1986		
	Data set (includes paper copy)..	PB89-205546	T03
	Microfiche only.....	PB89-205553	A14 through A17
	Paper copy of microfiche.....	PB89-205553	A99
<u>NFCS 1987-88</u> <u>Individual Intake</u>	Nationwide Food Consumption Survey, 1987-88 Individual Intake.	PB90-504044	T05
<u>NFCS 1987-88</u> <u>Household Use</u> <u>of Food</u>	Nationwide Food Consumption Survey, 1987-88 Household Use of Food.	PB92-500016	T04

**Price codes can be found in the back of this brochure



NTIS Price Schedules

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A03	17.00	E03	16.00
A04 through A05	19.00	E04	19.00
A06 through A09	26.00	E05	21.00
A10 through A13	35.00	E06	24.00
A14 through A17	43.00	E07	27.00
A18 through A21	50.00	E08	30.00
A22 through A25	59.00	E09	33.00
A99	Contact NTIS for price	E10	36.00
		E11	39.00
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		E13	46.00
		E14	50.00
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		E19	76.00
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D06	300
D07	360
D08	410
D09	460
D10	520
D11	570
D12	630
D13	680
D14	740
D15	790
D16	840
D17	890
D18	950
D19	1,000
D99	Contact NTIS for price

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T02	240
T03	360
T04	480
T05	590
T06	710
T07	820
T08	940
T09	1,050
T10	1,160
T11	1,270
T12	1,390
T13	1,500
T14	1,620
T15	1,740
T16	1,850
T17	1,960
T18	2,080
T19	2,190
T99	Contact NTIS for price

Prices effective October 1991.

These prices are for the U.S., Canada, and Mexico only. For the most recent schedule, write or call (703) 487-4650 and request PR-360-3. For customers in other countries, ask for PR-360-4.

HOW TO ORDER

Publications

Food composition and food survey publications may be ordered from the Government Printing Office. The stock numbers and cost for food composition publications are given on page 4; those for food survey publications on pages 31 to 33.

To order a publication send a check or money order (no cash) to:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

Please include the publication title, publication stock number, and your name, address, and zip code.

To order publications by telephone, call (202) 783-3238. Orders must include the publication's stock number and may be charged to Mastercard or VISA.

Prices on publications are subject to change without notice. Check with GPO before ordering.

Publications, Data sets, and microfiche

Most CSFII publications and all data sets available to the public are distributed through the National Technical Information Service (NTIS) at: U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. To reduce the probability of getting the wrong data set, requests for data tapes should include the accession number given on pages 25 and 26 or on pages 34 to 39. When ordering data diskettes, please use the complete title.

Ordering

Please add \$3.00 for shipping and handling per order. Documentation is included in the price of the data tape or diskette.

Normal shipment for computer tapes is by United Parcel Service. Express shipment with overnight delivery of tapes is available at the customer's expense. Tapes may also be picked up at NTIS. Please let NTIS know if you wish any of these two options when ordering.

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Orders can be called into the NTIS sales desk at (703) 487-4650. You may use your NTIS deposit account when ordering. American Express, VISA, and Master Card credit card numbers are accepted, as well as checks and money orders. While prepayment is not mandatory for domestic users, \$7.50 will be assessed to orders requiring billing services.

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Springfield, VA 22161



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Effective October 1, 1991

REGULAR SERVICE—Orders may be placed by phone, mail, fax, electronically, or in the Bookstore; ship-and-bill is accepted.

Handling fee applies to all orders except RUSH, Subscriptions, QuikSERVICE, or pick-up at NTIS.

U.S., Canada & Mexico \$3 handling fee per order First Class Mail or equivalent

Other countries \$4 handling fee per order Surface Mail (unless customer pays for Air Mail or courier)

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Canada & Mexico \$4 per paper copy and \$1 for microfiche

Other countries \$8 per paper copy and \$1.25 for microfiche

Computer tapes & diskettes (Action code other than SS)

U.S. addresses First Class mail or equivalent at no extra fee. Currently UPS is used for most shipping. Replacement diskettes are sent by overnight courier at no extra charge.

All other addresses Shipping time of 3–5 days by DHL Courier

Shelf-stock computer tapes & diskettes, including Grateful Med, CD-ROM, and optical disks (SS action code)

Orders are processed and shipped same as paper copy orders.

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Pickup at NTIS \$15 per title, \$5 for each additional copy of the same title or volume in a set

U.S. \$15 per title, \$5 for each additional copy of the same title or volume in a set Federal Express by 5 p.m.

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Other countries \$25 per title, \$8 for each additional copy of the same title or volume in a set Air Mail

Shelf-stock computer tapes & diskettes, including Grateful Med, CD-ROM, and optical disks (SS action code)

RUSH orders are processed and shipped the same as paper copy orders for the same fee.

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Pickup at NTIS \$25 per title, \$5 for each additional copy of the same title

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OTHER INFORMATION

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Certification fee—\$35 per copy; allow additional 3 business days; must be placed as a RUSH order.

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National Technical Information Service
Springfield, VA. 22161

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